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THE Be-Cd (BERYLLIUM-CADMIUM) SYSTEM

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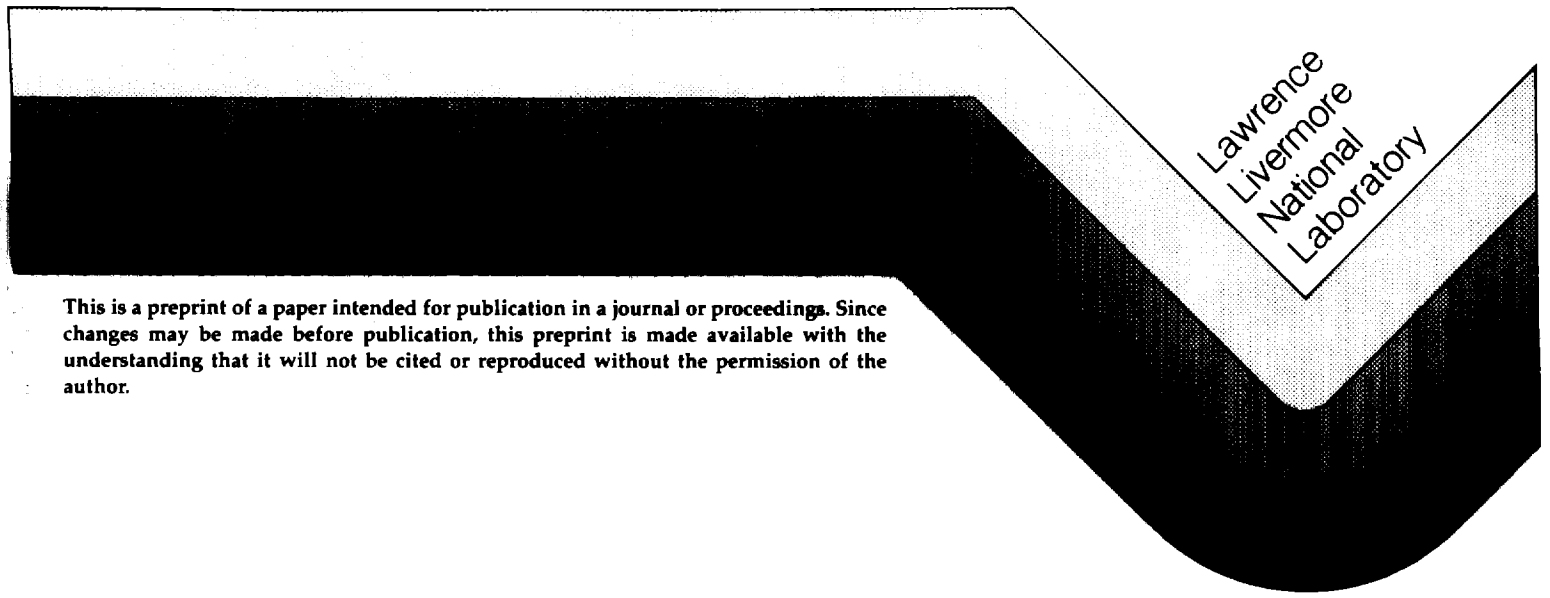

DISCLAIMER

The Be-Cd (Beryllium-Cadmium) System
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Information about the Be-Cd system was given by [60Kle] and [60Yan] as cited by [65Ell]. No additional data have been reported since.

Cd was not retained in αBe solid solution [60Kel] (<<0.01 at.% at 800 °C [60Yan]). The melting point of βBe and the βBe --> αBe allotropic transformation temperature are 1289±4 and 1270±6 °C, respectively [85BAP]. The melting point of Cd is 321.108 °C [81BAP].

A summary of crystal structure and lattice parameter data for pure elements is given in Table 1.

Cited References

60Kle: J. Klein, L. Perelman, and W.W. Beaver, "Developement of Wrought Beryllium Alloys of Improved Properties," WADC Tech. Rept. 58-478, pt. II, 24 and 110, Sept. (1960). (Equi Diagram; Experimental)

60Yan: F.M. Yans, "A preliminary Investigation of the Beryllium-Zinc Binary System," U.S. At. Energy Comm. NMI-1240, 41pp (1960). (Equi Diagram; Experimental)

65Ell: R.P. Elliott, Constitution of Binary Alloys, First Supplement, McGraw-Hill, New York or General Electric Co., Business Growth Services, Schenectady, NY 12345 (1965). (Equi Diagram; Compilation)

81BAP: "Melting Points of the Elements", Bull. Alloy Phase Diagrams, 2(1), 145-146 (1981). (Equi Diagram; Compilation)

85BAP: to be published in Bull. Alloy Phase Diagrams (1985). (Equi Diagram; Compilation)

Acknowledgments

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Table 1 Be-Cd Crystal Structure and Lattice Parameter Data

Phase	Composition, at.% Cd	Pearson symbol	Strukturbericht designation	Space group	Prototype	Lattice parameters, nm a	c
(βBe)....	0	cI2	A2	Im3m	W	0.25515	...
(αBe)....	0	hP2	A3	$P6_3/mmc$	Mg	0.22857	0.35839
(Cd).....	100	hP2	A3	$P6_3/mmc$	Mg	0.29788	0.56167